

Y. Izumi, et al.  
Serial No. 09/774,858  
Page 2 of 14

**Amendments To The Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of claims:**

1. (Presently amended) An active matrix substrate, comprising:  
electrode wires constituted by scanning electrode wiring and signal electrode wiring that  
are arranged in a lattice;  
an insulating film provided at least on the electrode wires so as to have openings in  
predetermined areas at least either on the scanning electrode wiring or on the signal electrode  
wiring; and  
a metal layer in the openings of the insulating film and in contact with the electrode  
wiring to cap the openings.
2. (original) The active matrix substrate as defined in claim 1, wherein  
the metal layer includes at least one kind of metal film selected from the group consisting  
of a nickel film, a copper film, and a gold film.
3. (original) The active matrix substrate as defined in claim 1, wherein  
the metal layer include a plurality of layers.
4. (previously amended) The active matrix substrate as defined in claim 1, wherein  
at least either the scanning electrode wiring or the signal electrode wiring are fabricated  
from a transparent conducting oxide film.
5. (original) The active matrix substrate as defined in claim 1, wherein  
the insulating film is made of SiNx.

Y. Izumi, et al.  
Serial No. 09/774,858  
Page 3 of 14

6. (original) The active matrix substrate as defined in claim 1, wherein the metal layer is formed by wet plating.
7. (Presently amended) A display device, comprising:  
an active matrix substrate; and  
an electro-optical medium driven by the active matrix substrate,  
the active matrix substrate including: electrode wires constituted by scanning electrode wiring and signal electrode wiring that are arranged in a lattice; an insulating film provided at least on the electrode wires so as to have openings in predetermined areas at least either on the scanning electrode wiring or on the signal electrode wiring; and a metal layer in the openings of the insulating film and in contact with the electrode wiring to cap the openings.
8. (original) The display device as defined in claim 7, wherein the metal layer includes at least one kind of metal film selected from the group consisting of a nickel film, a copper film, and a gold film.
9. (original) The display device as defined in claim 7, wherein the metal layer include a plurality of layers.
- 10 (previously amended) The display device as defined in claim 7, wherein at least either the scanning electrode wiring or the signal electrode wiring are fabricated from a transparent conducting oxide film.
11. (original) The display device as defined in claim 7, wherein the insulating film is made of SiNx.
12. (original) The display device as defined in claim 7, wherein the electro-optical medium is a liquid crystal.
13. (original) The display device as defined in claim 7, wherein

Y. Izumi, et al.  
Serial No. 09/774,858  
Page 4 of 14

the metal layer is formed by wet plating.

14. (Presently amended) An image-capturing device, comprising:  
an active matrix substrate; and  
a photoconductor of which electric charge is read by the active matrix substrate  
the active matrix substrate including: electrode wires constituted by scanning electrode  
wiring and signal electrode wiring that are arranged in a lattice; an insulating film provided at  
least on the electrode wires so as to have openings in predetermined areas at least either on the  
scanning electrode wiring or on the signal electrode wiring; and a metal layer in the openings of  
the insulating film and in contact with the electrode wiring to cap the openings.

15. (original) The image-capturing device as defined in claim 14, wherein  
the metal layer includes at least one kind of metal film selected from the group consisting  
of a nickel film, a copper film, and a gold film.

16. (original) The image-capturing device as defined in claim 14, wherein  
the metal layer include a plurality of layers.

17 (previously amended) The image-capturing device as defined in claim 14,  
wherein  
at least either the scanning electrode wiring or the signal electrode wiring are fabricated  
from a transparent conducting oxide film.

18. (original) The image-capturing device as defined in claim 14, wherein  
the insulating film is made of SiNx.

19. (original) The image-capturing device as defined in claim 14, wherein  
the photoconductor is made of amorphous selenium.

Y. Izumi, et al.  
Serial No. 09/774,858  
Page 5 of 14

20. (original) The image-capturing device as defined in claim 14, further comprising:

a luminescent layer.

21. (original) The image-capturing device as defined in claim 14, wherein the metal layer is formed by wet plating.

22. (Presently amended) A method of manufacturing an active matrix substrate, comprising the steps of:

(a) forming scanning electrode wiring and signal electrode wiring, for acting as electrode wires, arranged in a lattice on a substrate;

(b) forming an insulating film at least on the electrode wires so as to have openings in predetermined areas at least either on the scanning electrode wiring or on the signal electrode wiring; and

(c) forming a metal layer in the openings of the insulating film and in contact with the electrode wiring to cap the openings.

23. (original) The method of manufacturing an active matrix substrate as defined in claim 22, wherein:

the insulating film is made of SiNx

24. (original) The method of manufacturing an active matrix substrate as defined in claim 22, wherein:

the insulating film is made of SiNx, and the metal layer is made of copper.

25. (original) The method of manufacturing an active matrix substrate as defined in claim 22, wherein:

the metal layer is formed by electric plating.

Y. Izumi, et al.  
Serial No. 09/774,858  
Page 6 of 14

26. (original) The method of manufacturing an active matrix substrate as defined in claim 22, wherein:

the metal layer is formed by electroless plating.

27. (Previously Presented) A method of manufacturing an active matrix substrate comprising the steps of:

(a) forming scanning electrode wiring and signal electrode wiring, for acting as electrode wires, arranged in a lattice on a substrate;

(b) forming an insulating film at least on the electrode wires so as to have openings in predetermined areas at least either on the scanning electrode wiring or on the signal electrode wiring; and

(c) forming a metal layer in the openings of the insulating film and in contact with the electrode wiring, wherein:

the opening and the metal layer are provided along substantially the whole length of at least either one of the scanning electrode wiring and the signal electrode wiring.

28. (Previously Presented) An active matrix substrate comprising:  
electrode wires constituted by scanning electrode wiring and signal electrode wiring that are arranged in a lattice;

an insulating film provided at least on the electrode wires so as to have openings in predetermined areas at least either on the scanning electrode wiring or on the signal electrode wiring; and

a metal layer in the openings of the insulating film and in contact with the electrode wiring, wherein

the opening and the metal layer are provided along substantially the whole length of at least either one of the scanning electrode wiring and the signal electrode wiring.

29. (Previously Presented) A display device, comprising:

an active matrix substrate; and

an electro-optical medium driven by the active matrix substrate,

Y. Izumi, et al.  
Serial No. 09/774,858  
Page 7 of 14

the active matrix substrate including: electrode wires constituted by scanning electrode wiring and signal electrode wiring that are arranged in a lattice; an insulating film provided at least on the electrode wires so as to have openings in predetermined areas at least either on the scanning electrode wiring or on the signal electrode wiring; and a metal layer in the openings of the insulating film and in contact with the electrode wiring, wherein

the opening and the metal layer are provided along substantially the whole length of at least either one of the scanning electrode wiring and the signal electrode wiring.

30. (Previously Presented) An image-capturing device, comprising:

an active matrix substrate; and

a photoconductor of which electric charge is read by the active matrix substrate

the active matrix substrate including: electrode wires constituted by scanning electrode wiring and signal electrode wiring that are arranged in a lattice; an insulating film provided at least on the electrode wires so as to have openings in predetermined areas at least either on the scanning electrode wiring or on the signal electrode wiring; and a metal layer in the openings of the insulating film and in contact with the electrode wiring, wherein

the opening and the metal layer are provided along substantially the whole length of at least either one of the scanning electrode wiring and the signal electrode wiring.

31. (Previously Presented) The method of manufacturing an active matrix substrate as defined in Claim 27, wherein:

the opening and the metal layer are provided on both of the scanning electrode wiring and the signal electrode wiring.

32. (Previously Presented) The active matrix substrate as defined in Claim 28, wherein:

the opening and the metal layer are provided on both of the scanning electrode wiring and the signal electrode wiring.

Y. Izumi, et al.  
Serial No. 09/774,858  
Page 8 of 14

33. (Previously Presented) The display device as defined in Claim 29, wherein:  
the opening and the metal layer are provided on both of the scanning electrode wiring and  
the signal electrode wiring.

34. (Previously Presented) The image-capturing device as defined in Claim 30,  
wherein:  
the opening and the metal layer are provided on both of the scanning electrode wiring and  
the signal electrode wiring.

35. (Previously Presented) The method of manufacturing an active matrix  
substrate as defined in Claim 22, wherein:  
the step (a) includes the sub-steps of:  
forming the scanning electrode wiring, and a gate electrode and a storage capacitance  
electrode of a thin film transistor, on the substrate, and  
forming the signal electrode wiring, and a source electrode and a drain electrode of the  
thin film transistor, on the scanning electrode wiring, and the gate electrode and the storage  
capacitance electrode, via a gate insulating film; and  
in the step (b), an opening is formed also in a predetermined area of the drain electrode.

36. (Previously Presented) The active matrix substrate as defined in Claim 1,  
further comprising:

a storage capacitance electrode for providing a storage capacitance between the storage  
capacitance electrode and a pixel electrode of a pixel provided for each intersection of the  
scanning electrode wiring and the signal electrode wiring,

Y. Izumi, et al.  
Serial No. 09/774,858  
Page 9 of 14

wherein:

the storage capacitance electrode is provided apart from the scanning electrode wiring.

37. (Previously Presented) The display device as defined in Claim 7, further comprising: a storage capacitance electrode for providing a storage capacitance between the storage capacitance electrode and a pixel electrode of a pixel provided for each intersection of the scanning electrode wiring and the signal electrode wiring,

wherein:

the storage capacitance electrode is provided apart from the scanning electrode wiring.

38. (Previously Presented) The image-capturing device as defined in Claim 14, further comprising:

a storage capacitance electrode for providing a storage capacitance between the storage capacitance electrode and a pixel electrode of a pixel provided for each intersection of the scanning electrode wiring and the signal electrode wiring,

wherein:

the storage capacitance electrode is provided apart from the *scanning* electrode wiring.

39. (Previously Presented) The method of manufacturing an active matrix substrate as defined in Claim 22, wherein:

the step (a) includes the sub-step of:

forming a storage capacitance electrode for providing a storage capacitance between the storage capacitance electrode and a pixel electrode of a pixel provided for each intersection of the scanning electrode wiring and the signal electrode wiring, the storage capacitance electrode being formed to be parallel to the scanning electrode wiring.